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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
LE, MIRANDA	
ART UNIT	PAPER NUMBER
2159	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/800,163	DESHMUKH ET AL.	
	Examiner	Art Unit	
	MIRANDA LE	2159	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2009 and 12 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18,39 and 40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18,39 and 40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/13/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/24/09 has been entered.

Election/Restrictions

Claims 28, 32, 34-36, 41-43, 46, 44-45 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse of Group I, claims 1-18, 39-40, in the reply filed on 05/21/09, is acknowledged.

Information Disclosure Statement

Applicants' Information Disclosure Statement, filed 11/13/08, has been received, entered into the record, and considered. See attached form PTO-1449.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-18, 39, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lord et al. (US Patent No. 6,961,909), in view Perttunen (US Patent No. 6,563,521), and further in view of Watkins et al. (Patent No. 6,457,017).

As to claims 1, 10, 39, Lord teaches a method/machine readable medium for creating a file information database comprising:

scanning a storage server having a directory structure *(i.e. Tables 1-3, cols. 5-8)*;

collecting data regarding the directory structure *(i.e. Tables 1-3, cols. 5-8)*;

for each directory of the directory structure, determining whether each member of the directory is a file or subdirectory *(i.e. Tables 1-3, cols. 5-8)*;

assign a first unique identification (ID) number to a first determined directory and a second unique ID number to a second determined directory in the directory structure *(i.e. Tables 1-3, cols. 5-8);*

writing a data structure including the first ID number, the second ID number and a relation between the first directory and the second directory *(i.e. Tables 1-3, cols. 5-8)*;

traverse the directory structure in a depth first search (DFS) order *(i.e. Tables 1-3, cols. 5-8)*; and

assign a first unique identification (ID) number to a first determined directory and a second unique ID number to a second determined directory in the directory structure, wherein the ID numbers are assigned while the directory structure is being traversed in the DFS order, and wherein the ID numbers correspond to the DFS order in which the determined directories are traversed *(i.e. Tables 1-3, cols. 5-8)*.

Lord implicitly teaches "a depth first search order" as in Tables 1, 2, 3, cols. 5-8.

Lord does not clearly teach:

using a first thread to:

traverse the directory structure in a depth first search (DFS) order; and

assign a first unique identification (ID) number to a first determined directory and a second unique ID number to a second determined directory in the directory structure, wherein the ID numbers are assigned while the directory structure is being traversed in the DFS order, and wherein the ID numbers correspond to the DFS order in which the determined directories are traversed;

using a second thread to examine the determined files.

Perttunen teaches:

using a first thread to:

traverse the directory structure in a depth first search (DFS) order *(i.e. Improved methods, articles and apparatus for organizing information are disclosed herein. Items related by a tree are further organized by determining a depth-first search of the tree having an optimum value associated therewith. The associated value of a depth-first search is based upon an order of considering items in the tree, and similarity values between pairs of items in the tree, col. 1, lines 58-64)*; and

assign a first unique identification (ID) number to a first determined directory and a second unique ID number to a second determined directory in the directory structure, wherein the ID numbers are assigned while the directory structure is being traversed in the DFS order, and wherein the ID numbers correspond to the DFS order in which the determined directories are traversed *(i.e. Improved methods, articles and apparatus for organizing information are disclosed herein. Items related by a tree are further organized by determining a depth-first search of the tree having an optimum value associated therewith. The*

associated value of a depth-first search is based upon an order of considering items in the tree, and similarity values between pairs of items in the tree, col. 1, lines 58-64);

using a second thread to examine the determined files *(i.e. Each base message, i.e. each message that begins a new thread, may have an associated edge to a root node in the tree. If a search is performed, the root node may represent the search expression. Regardless of whether a search is performed, the root node may represent a discussion group of which the messages are elements, col. 4, 24-29)*.

It would have been obvious to one of ordinary skill of the art having the teaching of Lord and Perttunen at the time the invention was made to modify the system of Lord to include the limitations as taught by Perttunen. One of ordinary skill in the art would be motivated to make this combination in order to determine a depth-first search of the tree having an optimum value associated therewith in view of Perttunen (Abstract), as doing so would give the added benefit of efficiently organizing information as taught by Perttunen (Abstract).

Perttunen implicitly teaches the first and second threads in col. 4, lines 24-29.

Lord and Perttunen do not clearly state this limitation.

Watkins teaches this limitation *(i.e. The directory list controller 10 ensures that no two threads access the directory list at the same time, and that the index list does not have two directories that overlap. The directory list controller 10 uses a binary data file to store the information it needs to build an in-memory*

linked list of places that are indexed. The information managed and maintained by the directory list controller 10 is used by the watchdog 20 to know which directories or sites need to be watched, col. 3, lines 36-43).

It would have been obvious to one of ordinary skill of the art having the teaching of Lord, Perttunen, Watkins at the time the invention was made to modify the system of Lord, Perttunen to include the limitations as taught by Watkins. One of ordinary skill in the art would be motivated to make this combination in order to manage folders and files from a variety of file systems in view of Watkins (Abstract), as doing so would give the added benefit of logically organizing folders and documents for presentation to the user as taught by Watkins (Abstract).

As to claims 2, 11, Lord, as combined, wherein the agent has a first file system, and the scanning and collecting by using an agent separate from the storage server (See Fig. 2).

As to claims 3, 12, Lord, as combined, teaches wherein the agent has a first file system, and the storage server has a second file system, and wherein the first file system is different from the second file system (See Fig. 2).

As to claims 4, 13, Lord, as combined, teaches the wherein the relation indicates that the first directory is an immediate child of the second directory *(i.e. Tables 1-3, cols. 5-8)*.

As to claims 5, 14, Lord, as combined, teaches wherein assigning further comprises assigning the ID number while colleting the data *(i.e. Tables 1-3, cols. 5-8)*.

As to claims 6, 15, Lord, as combined, teaches wherein writing the data structure further comprises writing the data structure to a database server *(i.e. Tables 1-3, cols. 5-8)*.

As to claims 7, 16, Lord, as combined, teaches:

receiving a request to determine the parent of the first directory *(i.e. Tables 1-3, cols. 5-8)* ; and

referencing the relation between the first directory and the second directory of the data structure to determine the parent of the first directory *(i.e. Tables 1-3, cols. 5-8)*.

As to claims 8, 17, Lord, as combined, teaches:

receiving a request to determine an immediate child of the second directory *(i.e. Tables 1-3, cols. 5-8);*

searching the data structure to find any relation, including the relation between the first directory and the second directory, which indicates that the second directory is a parent in said relation *(i.e. Tables 1-3, cols. 5-8);* and

determine the immediate child of the second directory based on said any relation *(i.e. Tables 1-3, cols. 5-8)*.

As to claims 9, 18, Lord, as combined, teaches:

receiving a request to determine a set of ID number of every child of a third directory in the directory structure, wherein the third directory is assigned a third ID number *(i.e. Tables 1-3, cols. 5-8)*;

determining fourth ID number of a sibling of the third directory *(i.e. Tables 1-3, cols. 5-8)*; and

determining the set of ID number between the third ID number and the fourth ID number *(i.e. Tables 1-3, cols. 5-8)*.

As per claim 40, Lord teaches the method of claim 1, wherein a top level directory of the directory structure is assigned an ID of "0" (zero) *(i.e. The present exemplary navigation tree implementation comprises an array of data describing the objects in the displayed tree segment, and a string of data describing the state of the navigation tree. The root of the tree is always open. The root, as shown in FIG. 2, has a preset label value of "Network." The index value (that is, the integer value indicating its relative position in the entire tree) of the root is -1. The Unique Identification (UID) value of the root is all zeroes, col. 4, lines 25-41)*.

Response to Arguments

With respect to claims 1-18, 39, 40, Applicants have amended the independent claims 1, 10, 39 to overcome the cited references; however, upon

further consideration, a new ground(s) of rejection is made in view of newly found prior art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James K. Trujillo, can be reached at (571) 272-3677. The fax number to this Art Unit is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Miranda Le/
Primary Examiner, Art Unit 2159